

Figure 1 displays 12 histograms, labeled  $x_0$  through  $x_{11}$ , showing the distribution of the number of non-zero elements in the vector  $x_k$ . The x-axis represents the number of non-zero elements (0 to 10), and the y-axis represents the count (0 to 10). The distributions are roughly bell-shaped and centered around 5, with the peak count increasing from 10 at  $x_0$  to 12 at  $x_{11}$ .

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